



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,157	03/11/2004	Wenjie Li	FIS920030393US1	7576
30449	7590	12/14/2004	EXAMINER	
SCHMEISER, OLSEN + WATTS SUITE 201 3 LEAR JET LATHAM, NY 12033			LEE, SIN J	
			ART UNIT	PAPER NUMBER
			1752	

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/798,157

Applicant(s)

LI ET AL.

Examiner

Sin J. Lee

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 6 is objected to because of the following informalities: on the first line of claim 6, applicants need to change "claim 6" to --- claim 5 ---. Appropriate correction is required.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4, 7-11, 13-17, 19, and 20 of copending Application No. 10/820,117 in view of Iwasa et al (6,074,801).

Claims 1 and 13 of App.'117 teaches present claims 1 and 13 except for the present multihydroxy-containing additive. Iwasa teaches (col.18, lines 4-26, col.19, lines 4-9) the use of 0.02-20 wt.% of polyhydric alcohol (alcohol with equal to or more than 2 valences) in a negative type photoresist composition in order to improve resolution. Iwasa includes 1,2-cyclohexanediol as one of the examples for such

polyhydric alcohol. Based on Iwasa's teaching, it would have been obvious to one of ordinary skill in the art to use a polyhydric alcohol such as 1,2-cyclohexanediol (present Q would be alicyclic group of 6 carbons and present m would be 2) in the negative photoresist composition of claims 1 and 13 of App.'117 in order to improve resolution of the photoresist composition as taught by Iwasa. Therefore, claims 1 and 13 of App.'117 in view of Iwasa would render obvious present inventions of claims 1-3, 13, and 18.

Claim 1 of App.'117 in view of Iwasa and further in view of claim 2 of App.'117 would render obvious present invention of claim 4. Claim 13 of App.'117 in view of Iwasa and further in view of claim 16 of App.'117 would render obvious present invention of claim 16.

Claim 1 of App.'117 in view of Iwasa and further in view of claims 3 and 4 of App.'117 would render obvious present inventions of claims 5 and 6. Claim 17 of App.'117 states that one of the first and second polymer further comprises a repeating unit formed from a monomer having an aqueous base soluble moiety. Therefore, one of ordinary skill in the art would immediately envisage the first polymer of App.'117 to further comprise a repeating unit formed from a monomer having an aqueous base soluble moiety. Therefore, claim 13 of App.'117 in view of Iwasa and further in view of claim 17 of App.'117 would render obvious present invention of claim 17.

Claim 1 of App.'117 in view of Iwasa and further in view of claim 7 of App.'117 would render obvious present invention of claim 7.

Claim 1 of App.'117 in view of Iwasa and further in view of claims 8-10 of App.'117 would render obvious present inventions of claims 8-10.

With respect to present claims 11 and 12, claim 11 of App.'117 teaches that the first polymer (present polymer (c)) is present in 0.1-30 wt.%, the solvent is present in 65-99 wt.%, and the photoacid generator is present 0.5-20 wt.% of the combined weight of the first and second polymer. These ranges overlap with present ranges of claims 11 and 12. Iwasa teaches (as explained above) the use of 0.02-20 wt.% of polyhydric alcohol. This range also overlaps with present ranges of claims 11 and 12. Therefore, prior art's ranges would render present ranges *prima facie* obvious. In the case "where the [claimed] ranges overlap or lie inside ranges disclosed by the prior art," a *prima facie* case of obviousness would exist which may be overcome by a showing of unexpected results, In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). Also, although App.'117 does not explicitly teach the present range for the amount of the quencher, since claim 10 of App.'117 teaches the use of a quencher, it is the Examiner's position that the present range for the amount of the quencher in present claims 11 and 12 would have been obvious to one of ordinary skill in the art because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 UPQ 215 (CCPA 1980). Therefore, claim 1 of App.'117 in view of Iwasa and further in view of claim 11 of App.'117 would render obvious present inventions of claims 11 and 12.

Claim 13 of App.'117 in view of Iwasa and further in view of claim 14 of App.'117 would render obvious present invention of claim 14.

Claim 13 of App.'117 in view of Iwasa and further in view of claim 15 of App.'117 would render obvious present invention of claim 15.

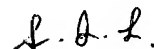
Claim 13 of App.'117 in view of Iwasa and further in view of claims 19 and 20 of App.'117 would render obvious present inventions of claims 19 and 20.

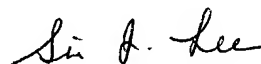
This is a provisional obviousness-type double patenting rejection.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sin J. Lee whose telephone number is 571-272-1333. The examiner can normally be reached on Monday-Friday from 9:00 am EST to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


S. Lee
December 10, 2004


Sin J. Lee
Patent Examiner
Technology Center 1700